

Water Compatible Hydraulic Fluids

Abstract

A composition for use in an oil chamber of a tool includes a hydraulic oil; and a surfactant, wherein the surfactant is present at an amount sufficient to form micelles in the hydraulic oil. The composition may further include an amphiphilic copolymer. A method includes providing a hydraulic fluid composition comprising a hydraulic oil and a surfactant capable of forming micelles in the hydraulic oil; and filling a hydraulic chamber in the tool with the hydraulic fluid composition. The hydraulic fluid composition may further include an amphiphilic copolymer.